

Preface

This volume, entitled *Artificial Intelligence XXXIV*, comprises the refereed papers presented at AI-2017, the 37th SGAI International Conference on Innovative Techniques and Applications of Artificial Intelligence, held in Cambridge in December 2017 in both the technical and the application streams. The conference was organized by SGAI, the British Computer Society Specialist Group on Artificial Intelligence.

The volume is the successor to *Research and Development in Intelligent Systems XXXIII* and *Applications and Innovations in Intelligent Systems XXIV*, which comprised the proceedings of AI-2016, and brings the two series together.

The technical papers included present new and innovative developments in the field, divided into sections on “Machine Learning and Neural Networks” and “Machine Learning, Speech and Vision, and Fuzzy Logic.” This year’s Donald Michie Memorial Award for the best refereed technical paper was won by the paper entitled “Using Constraint Satisfaction Problem Solving to Enable Workflow Flexibility by Deviation” by L. Grumbach and R. Bergmann (University of Trier, Germany).

The application papers included present innovative applications of AI techniques in a number of subject domains. This year, the papers are divided into sections on “AI for Healthcare”, “Applications of Machine Learning”, “Applications of Neural Networks and Fuzzy Logic”, “Case-Based Reasoning”, and “AI Techniques”. This year’s Rob Milne Memorial Award for the best refereed application paper was won by the paper entitled “Cable Belief Networks” by A. Ferguson and S. Thompson (BT Labs, UK).

The volume also includes the text of short papers in both streams presented as posters at the conference.

On behalf of the conference Organizing Committee we would like to thank all those who contributed to the organization of this year’s programme, in particular the Programme Committee members, the Executive Programme Committees, and our administrators Mandy Bauer and Bryony Bramer.

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Max Bramer
Miltos Petridis

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Bramer, M.; Petridis, M. (Eds.)

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